

CLAIMS

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

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- 5 A ceramic disc diverter valve comprising:
- a body including an inlet, a first outlet and a second outlet, said body further including a secondary inlet and a secondary outlet;
- means for securing said body to a water faucet with said inlet in fluid communication with the water faucet;
- 10 a ceramic disc stationary within said body;
- a ceramic disc movably disposed within said body in engagement with said stationary disc;
- means for depressurizing the disc diverter valve;
- and
- 15 means for selectively moving said movable disc into one of a first position wherein said inlet is in communication with said secondary outlet and said secondary inlet is in communication with said first outlet and a second position wherein said inlet is in communication with said second outlet, said movable disc positively sealing said secondary outlet and said secondary inlet when in said second position.

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20 The ceramic disc diverter valve of claim 1 wherein said body further includes a third outlet, said means for moving further including means for moving said movable disc into a

third position wherein said inlet is in communication with said third outlet, said movable disc positively sealing said secondary outlet and said secondary inlet when in said third mode; and

wherein one of said second outlet and said third outlet is a stream outlet and the other of said first or second outlets is a spray outlet.

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The ceramic disc diverter valve of claim 2 wherein said means for moving said movable ceramic disc includes a handle extending from said movable ceramic disc.

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The ceramic disc diverter valve of claim 3 wherein said handle is integral with
10 said movable ceramic disc.

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The ceramic disc diverter valve of claim 4 further including a gasket disposed between said stationary disc and said body; and

clamping means for clamping said stationary disc and said gasket to said body
15 independent of said movable disc.

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The ceramic disc diverter valve of claim 5 wherein said clamping means includes a screw extending through said stationary disc and said gasket into said body.

- 7 -

20 The ceramic disc diverter valve of claim 6 wherein said handle protrudes from said body; and

further comprising a selector ring mounted about said body, said selector ring operatively connected to said handle.

- 8 -

The ceramic disc diverter valve of claim 7 further comprising a second stationary ceramic disc within said body, said first and second stationary discs disposed on opposite sides of said movable disc.

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The ceramic disc diverter valve of claim 8 further comprising a head nut securing said movable disc and said second stationary disc within said body.

- 10 -

The ceramic disc diverter valve of claim 1 wherein said stationary disc defines a spray hole, a stream hole and a supply hole; and

wherein said movable disc defines a supply hole, said movable disc supply hole being aligned with said stationary disc supply hole when said diverter is in said first position, said movable disc supply hole being aligned with said stream hole when said diverter is in said second position, said movable disc supply hole being aligned with said spray hole when said diverter is in said third position.

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The ceramic disc diverter valve of claim 10 wherein said stationary disc defines a return hole and a treated outlet hole; and

wherein said movable disc defines a groove, said groove interconnecting said return hole and said outlet hole when said movable disc is in said first position.

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A ceramic disc diverter valve comprising:

a diverter valve body having an inlet mountable to a water faucet;

stream outlet means on said diverter valve body for discharging untreated water in a stream;

spray outlet means on said diverter valve body for discharging untreated water in a spray;

5 treated water outlet means on said diverter valve body for discharging treated water;

secondary outlet means on said diverter valve body for directing water to a water treatment device;

10 secondary inlet means on said diverter valve body for receiving treated water from the water treatment device;

a first stationary ceramic disc disposed within said diverter valve body;

a movable ceramic disc movably mounted within said diverter valve body adjacent said first disc;

means for moving said movable ceramic disc into one of:

15 a first position wherein said inlet is in communication with said secondary outlet and said secondary inlet is in communication with said treated outlet;

a second position wherein said inlet is in communication with said stream outlet means and said movable disc seals said secondary inlet and said secondary outlet; and

20 a third position wherein said inlet is in communication with said spray outlet means and said movable disc seals said secondary inlet and said secondary outlet; and

depressurizing means for depressurizing the ceramic disc diverter valve while the moveable ceramic disc is moved from the first position to the second position.

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The ceramic disc diverter valve of claim 12 further comprising a gasket disposed between said first stationary disc and said body; and

clamping means for clamping said first stationary disc and said gasket against said
5 body independently of said second stationary disc and said movable disc.

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The ceramic disc diverter valve of claim 13 wherein said clamping means includes a screw extending through said first stationary disc and said gasket into said body.

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10 The ceramic disc diverter valve of claim 14 wherein said means for moving said movable ceramic disc includes a handle extending from said movable ceramic disc.

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The ceramic disc diverter valve of claim 15 wherein said handle is integral with said movable ceramic disc.

15 - 17 -

The ceramic disc diverter valve of claim 16 wherein said handle protrudes from said body; and

further comprising a selector ring mounted about said body, said selector ring operatively connected to said handle.

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The ceramic disc diverter valve of claim 17 further comprising a second stationary disc mounted adjacent said movable disc, said movable disc disposed between said first stationary disc and said second stationary disc; and

a head nut securing said movable disc and said second stationary disc within said body.

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The ceramic disc diverter valve of claim 18 wherein said first stationary disc
5 defines a spray hole, a stream hole and a supply hole; and

wherein said movable disc defines a supply hole, said movable disc supply hole being aligned with said first stationary disc supply hole when said diverter is in said first position, said movable disc supply hole being aligned with said stream hole when said diverter is in said second position, said movable disc supply hole being aligned with said spray hole when
10 said diverter is in said third position.

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The ceramic disc diverter valve of claim 19 wherein said first stationary disc defines a return hole and a treated outlet hole; and

wherein said movable disc includes a groove, said groove interconnecting said
15 return hole and said outlet hole when said movable disc is in said first position.

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A ceramic disc diverter valve comprising:

a body having

an inlet mountable to a water faucet;

20 stream outlet means for discharging untreated water in a stream;

spray outlet means for discharging untreated water in a spray;

treated water outlet means for discharging treated water;

secondary outlet means for directing water to a water treatment device;

secondary inlet means for directing treated water from the water treatment device;
first and second stationary ceramic discs disposed within said diverter valve body;

and

a movable ceramic disc movably mounted within said diverter valve body
5 between said first disc and said second disc wherein said movable ceramic disc includes an
integral handle for selectively moving said movable ceramic disc into one of:

a first position wherein said inlet is in communication with said secondary
outlet and said secondary inlet is in communication with said treated outlet;

a second position wherein said inlet is in communication with said stream
10 outlet means and said movable disc seals said secondary inlet and said secondary outlet;

a third position wherein said inlet is in communication with said spray
outlet means and said movable disc seals said secondary inlet and said secondary outlet; and

depressurizing means for depressurizing the diverter valve body while the
moveable ceramic disc is moved from the first position to the second position.

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The ceramic disc diverter valve of claim 21 further comprising a gasket disposed
between said first stationary disc and said body; and

clamping means for clamping said first stationary disc and said gasket to said
body independent of said second stationary disc and said movable disc.

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The ceramic disc diverter valve of claim 22 wherein said clamping means
includes a screw extending through said first stationary disc and said gasket into said body.

- 24 -

The ceramic disc diverter valve of claim 23 wherein said handle protrudes from said body; and

5 further comprising a selector ring mounted about said body, said selector ring operatively connected to said handle.

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The ceramic disc diverter valve of claim 24 further comprising a head nut securing said movable disc and said second stationary disc within said body.

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10 The ceramic disc diverter valve of claim 25 wherein said first stationary ceramic disc defines a spray hole, a stream hole and a supply hole; and

wherein said movable disc defines a supply hole, said movable disc supply hole being aligned with said stationary disc supply hole when said diverter is in said first position, said movable disc supply hole being aligned with said stream hole when said diverter is in said
15 second position, and said movable disc supply hole being aligned with said spray hole when said diverter is in said third position.

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The ceramic disc diverter valve of claim 26 wherein said first stationary ceramic disc defines a return hole and a treated outlet hole; and

20 wherein said movable disc includes a groove, said groove interconnecting said return hole and said outlet hole when said movable disc is in said first position.